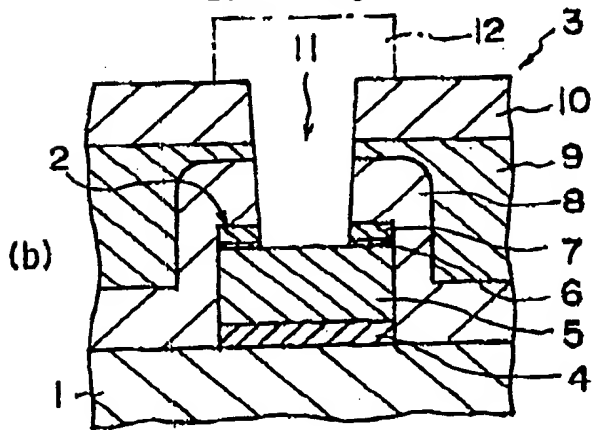
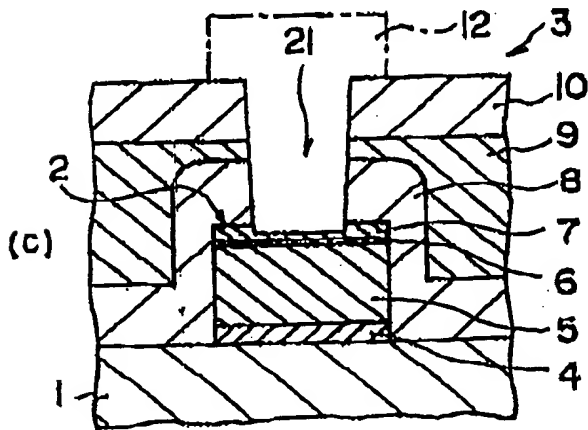


Before etching



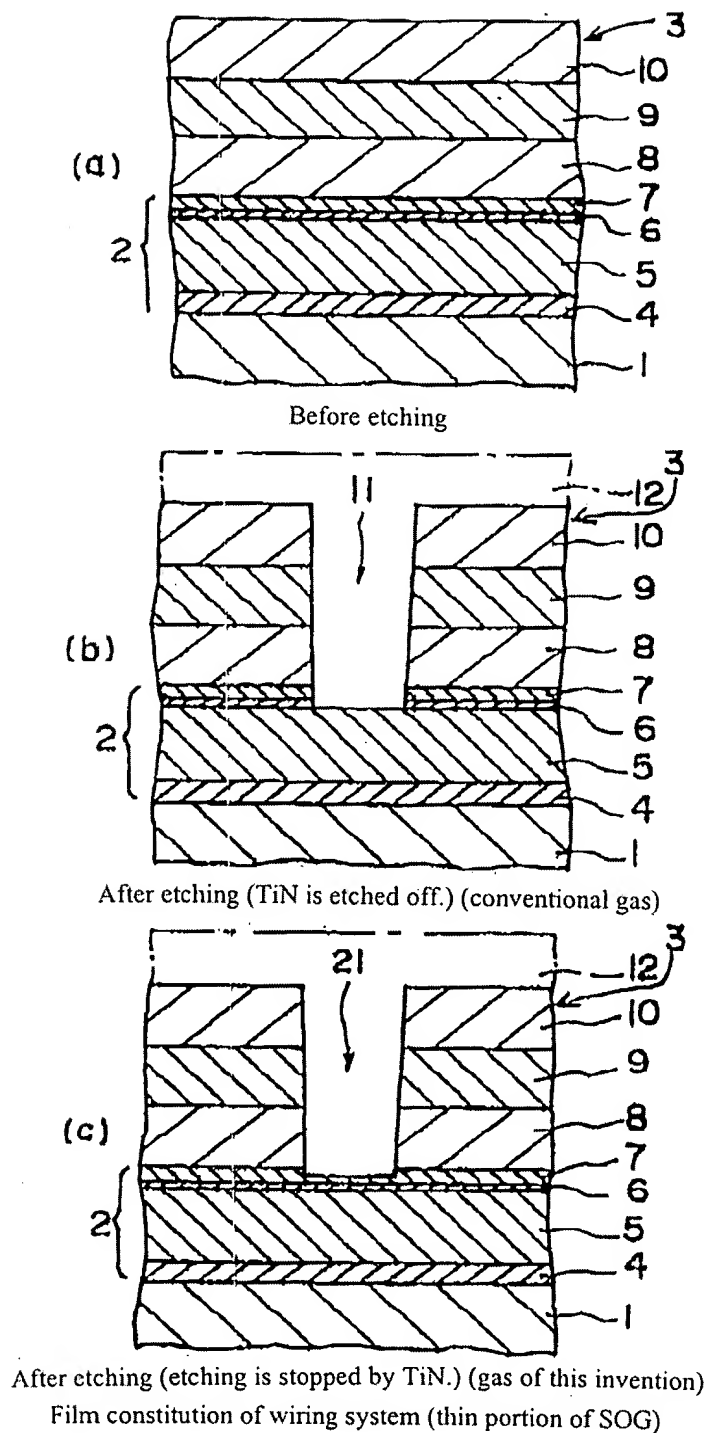
After etching (TiN is etched off.) (conventional gas)



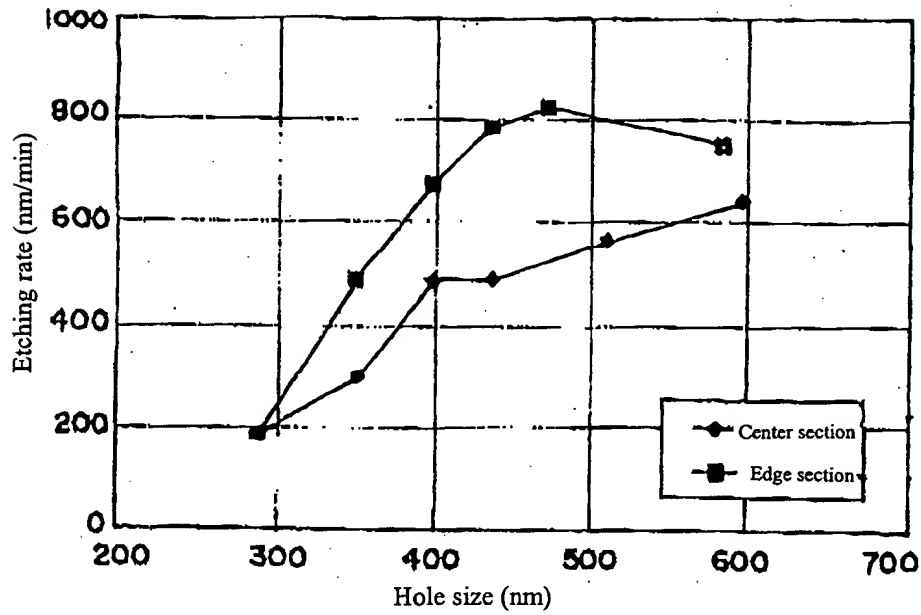
After etching (TiN is etched off.) (gas of this invention)

Film constitution of wiring system (thin portion of SOG)

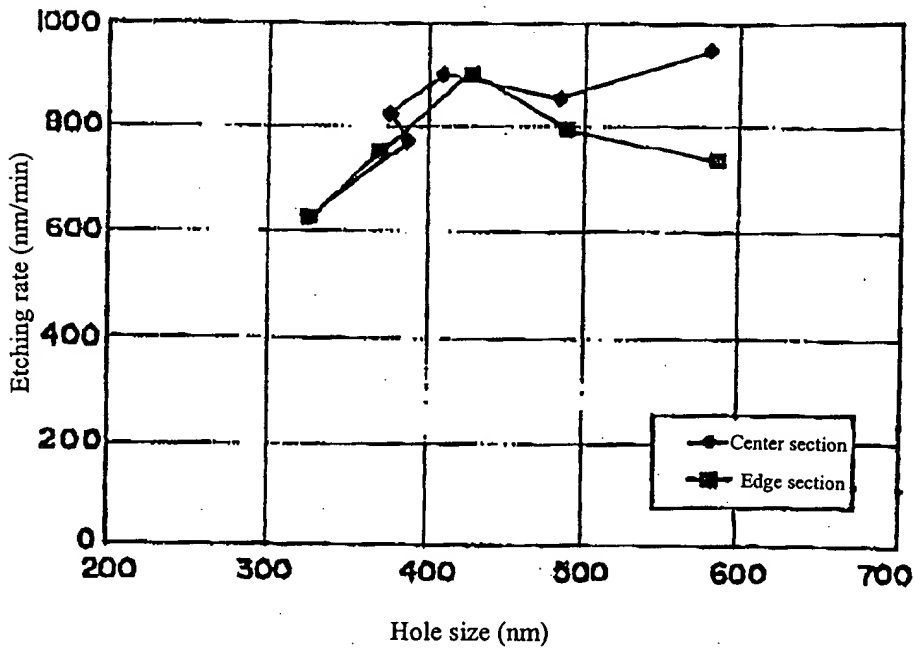
FIG. 1



5 FIG. 2



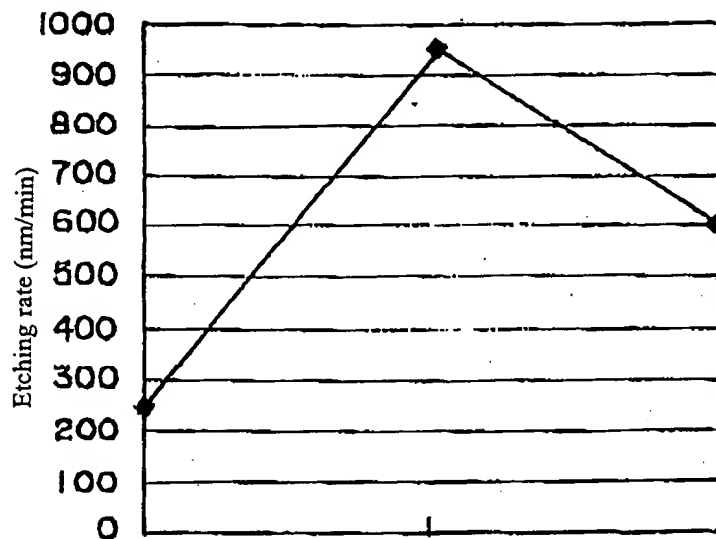
(a) Conventional conditions



(b) Conditions of this invention

Dependence of SOG etching rate on hole size

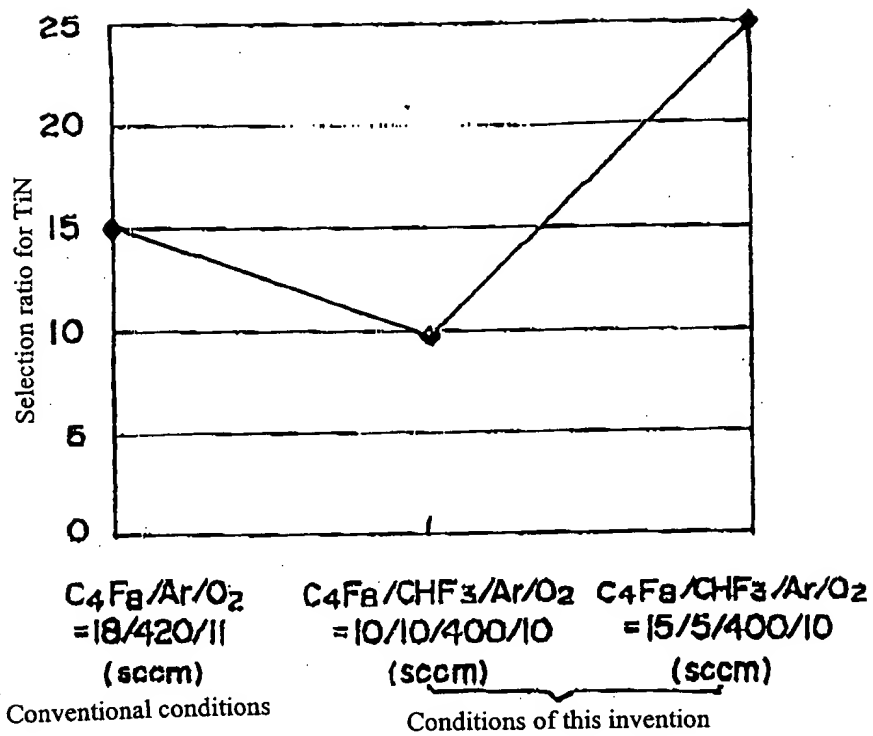
FIG. 3



C<sub>4</sub>F<sub>8</sub>/Ar/O<sub>2</sub> = 18/420/11 (sccm)      C<sub>4</sub>F<sub>8</sub>/CHF<sub>3</sub>/Ar/O<sub>2</sub> = 10/10/400/10 (sccm)      C<sub>4</sub>F<sub>8</sub>/CHF<sub>3</sub>/Ar/O<sub>2</sub> = 15/5/400/10 (sccm)  
 Conventional conditions      Conditions of this invention

Dependence of SOG etching rate on gas composition (when hole size is 0.32 μm)

FIG. 4



Dependence of selection ratio for TiN on gas composition  
(when hole size is 0.32  $\mu\text{m}$ )

FIG. 5

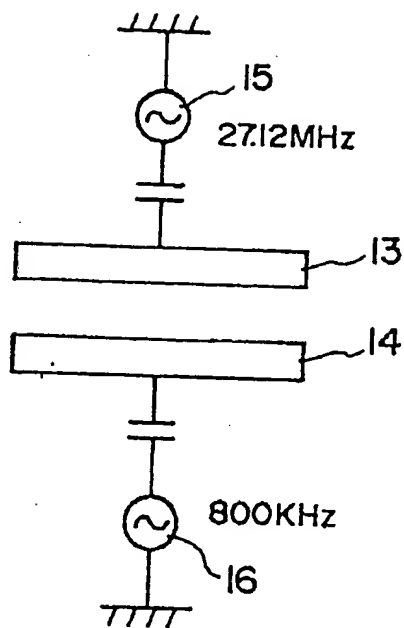


FIG. 6